



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 4

ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

November 23, 2009

Amy B. Henry  
Tennessee Valley Authority  
400 West Summit Hill Drive  
Knoxville, Tennessee 37902

**RE: Northeastern Tributary Reservoirs Land Management Plan  
Beaver Creek, Clear Creek, Boone, Fort Patrick Henry, South  
Holston, Watauga, and Wilbur reservoirs Carter, Johnson, Sullivan, and  
Washington counties, Tennessee; Washington County, Virginia  
CEQ No. 20090346**

Dear Ms. Henry:

Pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed the subject Northeastern Tributary Reservoirs Land Management Plan Beaver Creek, Clear Creek, Boone, Fort Patrick Henry, South Holston, Watauga, and Wilbur reservoirs Carter, Johnson, Sullivan, and Washington counties, Tennessee; Washington County, Virginia prepared by the Tennessee Valley Authority (TVA). This draft plan and EIS will hereafter be referred to as the Draft Environmental Impact Statement (DEIS).

The Tennessee Valley Authority (TVA) is developing a Northeastern Tributary Reservoirs (NTRs) Land Management Plan to guide land use decisions on TVA reservoir lands located along seven tributaries in the northeast Valley region (approximately 5,000 acres): Boone, Fort Patrick Henry, South Holston, Watauga, Wilbur, Beaver Creek, and Clear Creek. The goal for the reservoir planning effort is to provide a clear vision of how TVA will manage its public lands and identify lands for specific uses. This process relies heavily on public input regarding land uses and on how these lands should be managed for future uses.

**ALTERNATIVES INCLUDING THE PROPOSED ACTION**

This land plan considers three alternatives and incorporates TVA's 2006 Land Policy. The alternatives include a No Action Alternative (Alternative A) to continue use of the Forecast System designations on Fort Patrick Henry, South Holston, Watauga, and Wilbur reservoirs and use of the 1999 Boone Reservoir Land Management Plan. Under the No Action Alternative, Beaver Creek and Clear Creek reservoirs, which were never subject to the Forecast System or more recent land planning procedures, would remain unplanned. The other alternatives considered are a Proposed Land Use

Alternative (Alternative B) and a Modified Proposed Land Use Alternative (Alternative C). TVA's Preferred Alternative is Alternative C.

Under all of the alternatives:

- TVA would continue to conduct environmental reviews to address site-specific issues prior to the approval of any proposed development or activity on public land.
- Future activities and land uses will be guided by the TVA Land Policy.
- TVA land use allocations are not intended to supersede deeded landrights or land ownership.
- Parcels allocated to Industrial (Zone 5) and Shoreline Access (Zone 7) uses remain the same.

#### **Alternative A - No Action Alternative.**

Under the No Action Alternative, TVA would not prepare the NTRLMP and would continue current land plans or systems if they exist. Fort Patrick Henry, South Holston, Watauga, and Wilbur reservoirs would continue using the Forecast System developed for those reservoirs in 1965, which allocated parcels to 13 land use categories. Boone Reservoir would continue to use the RLMP developed in 1999. Beaver Creek and Clear Creek reservoirs would remain unplanned.

#### **Alternative B - the Proposed Land Use Alternative.**

Under Alternative B, TVA would prepare an RLMP addressing the seven NTRs. To develop proposed parcel allocations, TVA reviewed existing and newly collected field data on the lands being planned. The physical capability of each parcel for supporting potential suitable uses was assessed. TVA also reviewed deeds of selected tracts previously sold to private entities to identify existing shoreline access rights. The planning team honored all existing commitments (i.e., existing leases, licenses, and easements).

#### **Alternative C (The Preferred Alternative) - the Modified Proposed Land Use Alternative.**

Under Alternative C, TVA would prepare an RLMP for the seven NTRs. To develop proposed parcel allocations, TVA implemented the planning process described above under Alternative B and incorporated public comments and other information obtained during the scoping process. Under Alternative C, the 4,679 acres of committed lands would be allocated to land use zones consistent with the existing land use. The remaining uncommitted 254 acres (34 parcels) are proposed to be allocated to Zones 3, 4, or 6. Alternative C, as compared to Alternative B, represents changes in land use zones for 19 parcels. Because the total acreage of those 19 parcels is relatively small (238 acres), the percentage of land allocated to Zones 3, 4, and 6 is nearly the same under both action alternatives. Under Alternative C, parcels on Fort Patrick Henry, South

Holston, and Watauga reservoirs that contain state-listed plants, rare plant communities, cultural resources, and high-quality wetlands would be allocated to Zone 3, which is most protective of sensitive resources. Those parcels would be allocated to Zone 4 under Alternative B. Additionally, six parcels on South Holston and Watauga reservoirs would be allocated to Zone 6 under Alternative C rather than Zone 4 under Alternative B, which would provide additional, opportunities for recreation.

EPA submits the following comments regarding this DEIS for your consideration in the Final EIS (FEIS):

### **Recommendations**

EPA Region 4 recommends that TVA coordinate its efforts and/or become an active participant with the Beaver Creek Task Force (BCTF). In 1998 EPA led a group of agencies, institutions and utilities to form a partnership to determine how to address impacts to impaired streams in this rapidly urbanizing watershed. The BCTF has undertaken a number of major projects, including a flood study, a watershed inventory, and an outreach & education program. The partnership currently includes:

Beaver Creek Watershed Association  
 AmeriCorps  
 City of Knoxville  
 Environmental Protection Agency, Region 4  
 Hallsdale-Powell Utility District  
 Knox County Engineering and Public Works Stormwater Management Division  
 Knox County Health Department  
 Knox County Parks and Recreation  
 Knox County Soil Conservation District  
 Knox Land and Water Conservancy  
 Knoxville-Knox County Metropolitan Planning Commission  
 Knoxville/Knox County/Knoxville Utility Board GIS  
 Legacy Parks Foundation  
 Tennessee Department of Environment and Conservation  
 Tennessee Department of Transportation (TDEC)  
 Tennessee Valley Authority  
 Tennessee Water Resources Research Center, University of Tennessee  
 USDA Natural Resources Conservation District  
 United States Geological Survey  
 Water Quality Forum  
 West Knox Utility District

EPA recommends that future TVA watershed activities remain in compliance with all approved FEMA flood studies that have been completed within the Beaver Creek Watershed. Our agency has been concerned with the extreme development pressures and related induced stormwater/flooding problems. EPA has supported the development of a Beaver Creek Watershed Stormwater Master Plan that includes

regulatory mechanisms to address future flooding and environmental issues. This plan considers future build-out conditions in the watershed in order to allow Knox County to enact current regulations to mitigate future damages in the watershed caused by the anticipated level and pattern of development. The "no fill line" policy, which expanded the preserved floodplain area well beyond the FEMA minimums, followed this study as a key management measure for new construction. EPA therefore recommends that TVA closely coordinate its efforts with the Knox County Stormwater program.

EPA also recommends that TVA coordinate its future efforts with EPA Region 4's TMDL Program. A number of pathogens and sediment TMDLs have been approved by EPA for the Beaver Creek Watershed, and the NPS should consider the allowable loadings and available assimilative capacity (if any) in the waterbodies with established TMDLs. EPA is also currently working with the local governments to develop a formal Ecological Trading Program, and TVA should consider joining in this endeavor. Sediment and nutrient trading plans are currently being developed using work accomplished for the TMDL studies.

EPA Region 4 also recommends that TVA coordinate its efforts with the State of Tennessee's Nonpoint Source Management Program, which has been created to measurably reduce nonpoint source pollution and thus improve water quality. The program also seeks to strengthen and expand partnerships, and increase the water resources stewardship of Tennessee's citizens. Since the program was initiated in 1989, EPA has contributed more than \$37 million in grant funding through Section 319 of the Clean Water Act. The grant awards are supplemented by a 40% nonfederal match from the State. Some of these funds have been used in the Beaver Creek Watershed. EPA is currently working with the State on Beaver Creek Watershed nonpoint source-impaired waterbodies where restoration efforts have led to documented water quality improvements. Waterbodies have been separated into three categories, depending on the type of water quality improvement achieved: partially or fully restored waterbodies; those waterbodies that have made progress toward achieving water quality goals; and waterbodies with ecological restoration underway.

Finally, as Beaver Creek has historically been identified as impaired on the State's 303(d) list and a sediment TMDL has been developed by TDEC, a major sediment model for the Beaver Creek watershed was funded (completed by the University of Tennessee in 2005). This model found bank erosion to significantly contribute to stream sediment loads. The Rapid Geomorphic Assessment (RGA) developed by the USDA National Sedimentation Laboratory was recently used (2009) to quantify channel stability and bank erosion potential. The Study Team has measured variables as "force" surrogates (stream power, bankfull discharge), and "resistance" surrogates (soil cohesive strength and vegetation characteristics). These variables have been statistically correlated with RGA scores. EPA recommends that TVA review the study results, as these are useful for prioritization of any proposed bank stability projects.

## Summary

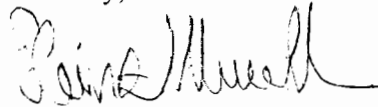
Currently, it appears that the Beaver Creek reservoirs will remain unplanned. Overall, the LMP has identified lands for specific uses and a clear vision on managing public lands. EPA Region 4 recommends that TVA coordinate its efforts and/or become an active participant with the Beaver Creek Task Force (BCTF). It is essential that the FEIS provide a clear understanding of the potential direct, indirect (secondary), and cumulative environmental impacts the proposed alternatives will have on the aquatic and other affected resources within the project area in association with other past, present and reasonably foreseeable projects. Therefore, EPA recommends that the FEIS provide a cumulative impact analysis for the Beaver Creek Reservoirs.

EPA's Alternative preference is Alternative B in which TVA would prepare an RLMP addressing the seven NTRs with minimum land disturbance.

We rate this document EC – 2. We have concerns that the preferred alternative will have impacts on the environment that could and should be avoided. The draft EIS does not contain sufficient information for the EPA to fully assess the environmental impacts that should be avoided in order to fully protect the environment. Additional information, data, analyses, or discussion should be included in the final EIS.

We appreciate the opportunity to review this document. Please call Ken Clark of my staff at (404) 562-8282 or [clark.ken@epa.gov](mailto:clark.ken@epa.gov) if you have questions on our comments.

Sincerely,

A handwritten signature in dark ink, appearing to read "Heinz Mueller", written in a cursive style.

Heinz J. Mueller, Chief  
NEPA Program Office  
Office of Policy and Management